



countdown

June 25, 2009

Vol. 14, No. 48

Repair work under way on Endeavour's fuel valve



◆ Shuttle Update:

Yesterday, crews began removing the plate that attaches a hydrogen gas vent line to space shuttle Endeavour's external fuel tank. Hydrogen leaks in the area of the Ground Umbilical Carrier Plate, or GUCP, postponed Endeavour's launch attempts June 13 and 17. The vent line leading from the external tank away from Launch Pad 39A to the "flame stack", where excess hydrogen gas is burned off during fueling of the external tank, was disconnected overnight.

The repairs will be confirmed by a "tanking test" within the next week, in which Endeavour's external tank will be filled with liquid hydrogen and liquid oxygen, just as it is before launch. If the repairs are successful, Endeavour's next launch attempt will be targeted for July 11 at 7:39 p.m. EDT.

◆ **ELV Update:** Atop the Delta IV rocket at Launch Complex 37, GOES-O spacecraft closeouts for launch are under way. Final spacecraft battery charging was completed Wednesday. A launch countdown dress rehearsal was performed Monday.

NASA contracted with Boeing to build and launch the GOES-O spacecraft. The NASA Launch Services Program at KSC is supporting the launch in an advisory role. NASA spacecraft project management for GOES-O is the responsibility of NASA's Goddard Space Flight Center. After launch, Boeing and NASA will complete on-orbit checkout and when the spacecraft is operational,

NASA will turn GOES-O over to NOAA.

■ **Mid-Year Health Insurance Service Day July 13** — A mid-year health insurance service day will be held July 13 in the HQ/2533 conference room from 11 a.m. to 2 p.m. Blue Cross, GEHA and Mail Handlers representatives will be available to answer questions and provide information about your 2010 health care options. No appointments will be taken, but there will be a sign-in sheet available. If you have any questions, please contact Susan Habenicht at 867-5378.

■ **NASA Science** — Where have all the sunspots gone? Scientists studying a jet stream deep inside the sun may have found the answer. Read all about it at: http://science.nasa.gov/headlines/y2009/17jun_jetstream.htm.



■ **NASA News** — NASA's long-lived Mars Odyssey spacecraft has completed an eight-month adjustment of its orbit, positioning itself to look down at the dayside of the planet in mid-afternoon instead of late afternoon.

Mars Odyssey launched April 7, 2001, on a Delta II rocket from CCAFS and reached Mars on Oct. 24.

The orbit change gains sensitivity for infrared mapping of martian minerals by the orbiter's Thermal Emission Imaging System camera. Orbit design for Odyssey's first seven years of observing Mars used a compromise between what worked best for the infrared mapping and for another onboard instrument.

GOES-O ready to go

Some important mineral discoveries by Odyssey stem from mapping done during a six-month period early in the mission when the orbit geometry provided mid-afternoon overpasses. One key example: finding salt deposits apparently left behind when large bodies of water evaporated.

You can read more about the orbit change at:

http://www.nasa.gov/mission_pages/odyssey/odyssey-20090622.html.



■ **Education Opportunity** — Florida Institute of Technology is now accepting applications for the fall, 15-week term beginning Aug. 24. FIT offers master of science in space systems, master of science in space systems management, master of science in computer information systems, master of science in computer science and master of science in software engineering degrees.

All classes are held from 5-8 p.m. one night a week in the Rockledge or KSC location. For more information go to www.uc.fit.edu.

■ **Reminder** — Friday is Spirit Day at KSC. Wear your alma mater colors, logo or jersey.

Countdown is published every Tuesday & Thursday for NASA KSC employees. Deadlines are 9 a.m. Mondays & Wednesdays. E-mail news to anita.l.barret@nasa.gov. For questions or information, e-mail or call 867-2815. You can also find PDF editions of *Countdown* on the Web at: http://www.nasa.gov/centers/kennedy/news/countdown/countdown_toc.html.